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Three Coleophoridae species new to the lepidopterofauna of the Maltese Islands and one new to the fauna of Europe (Lepidoptera: Coleophoridae)

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Abstract

Goniodoma limoniella (Stainton, 1884), Coleophora pyrrhulipennella Zeller, 1839 and Coleophora jefreniensis Toll, 1954 are here being recorded for the first time from the Maltese archipelago. The record of Coleophora jefreniensis Toll, 1954 from Malta is also a new record for Europe.

KEY WORDS: Lepidoptera, Coleophoridae, *Goniodoma limoniella* (Stainton, 1884), *Coleophora pyrrhulipennella* Zeller, 1839, *Coleophora jefreniensis* Toll, 1954, Malta, Europe.

Tres especies nuevas de Coleophoridae para la lepidopterofauna de Malta y una nueva para la fauna de Europa (Lepidoptera: Coleophoridae)

Resumen

Se citan por primera vez para el archipiélago Maltés *Goniodoma limoniella* (Stainton, 1884), *Coleophora pyrrhulipennella* Zeller, 1839 y *Coleophora jefreniensis* Toll, 1954. La cita de *Coleophora jefreniensis* Toll, 1954 es nueva para Malta y también es una nueva cita para Europa.

PALABRAS CLAVE: Lepidoptera, Coleophoridae, *Goniodoma limoniella* (Stainton, 1884), *Coleophora pyrrhulipennella* Zeller, 1839, *Coleophora jefreniensis* Toll, 1954, Malta, Europa.

Introduction

The Coleophoridae of the Maltese Islands are rather poorly known and to date the number of species and even specimens from this family in collections is very small. With these three new records, the number of Coleophorid species known from the Maltese Islands is only ten. The first record of Coleophoridae from Malta is that of *Coleophora calycotomella* Stainton, 1869, from a single specimen taken from Hal Safi on August 10, 1953 (DELUCCA, 1956: 256). In 1962, from material collected from Gharghur and sent to him by Dr. Carmelo DeLucca, Toll described *Coleophora mellechella* Toll, 1962 (TOLL, 1962: 658). However this species was later synonymized with *Coleophora conyzae* Zeller, 1860 (BALDIZZONE, 1982: 148). In 1969 Dr. DeLucca recorded two further species, *Coleophora versurella* Zeller, 1849 from material collected from Mellieha, and *Coleophora binotapennella* (Duponchel, 1843) from a single specimen collected on September 8, 1957, also from Mellieha (DELUCCA, 1969: 139). The author recorded three further species, namely *Coleophora luteolella* Staudinger, 1880 and *Coleophora crepidinella* Zeller, 1847 both species determined by genitalia by Dr. Willi Sauter of Switzerland (SAMMUT, 1985: 304), and *Coleophora semicinerea* Staudinger, 1859 from two specimens collected from Mtahleb in April 1985 (SAMMUT, 2000: 52).

Abbreviations

exx – examples coll. – Collection. UV – ultra violet light source.

Goniodoma limoniella (Stainton, 1884)

Material examined. MALTA, 2 exx., Fomm ir-Rih, 4-IX-2001, P. Sammut leg (coll. Sammut).

Life History. The eggs are laid on the flower of *Limonium melitense* Brullo, and the larva feeds on the seeds and builds its case out of the excised calyx. When fully grown, they bore into the stem of the foodplant and overwinter (EMMET, *et al.*, 3:141).

Distribution: Western Europe, the coastal salt marshes of Britain, the Netherlands, Belgium and France; the Mediterranean region, including the shores of Tunisia (EMMET *et al.*, 3:142)

Remarks: This species has been determined by genitalia by Dr. G. Baldizzone. Fomm ir-Rih, in the limits of Bahrija, is a coastal cliff and *Limonium melitense* Brullo, is the only *Limonium* species occurring there. The two specimens were collected at UV light.

Coleophora pyrrhulipennella Zeller, 1839

Material examined. MALTA, 1ex., Bahrija, Fomm ir-Rih, 24-VII-2002, P. Sammut leg. (coll. Sammut); 1 ex., same data, A. Seguna leg. (coll. Seguna); 1ex., Buskett, 6-VII-2004, P. Sammut leg. (coll. Sammut); 2.exx., Dingli, Dingli Cliffs, 9-V-2001, P. Sammut leg. (coll. Sammut); 1 ex., Dingli, Dingli Cliffs, 3-VI-2005, A. Seguna leg, (coll. Seguna); 3 exx., ex-larva, Mellieha, Qammieh, 1/6-VI-2005, M. Zerafa leg (coll. Zerafa): 7 exx., Mosta, Wied il-Ghasel, 5/8-VI-2005, M. Zerafa leg, (coll. Zerafa); 1 ex., Rabat, 24-VI-2004. P. Sammut leg (coll. Sammut); 1ex., Rabat, 30-VI-2003, P. Sammut leg (coll. Sammut); 1 ex., Rabat, Dwejra, 21-VI-2002, P. Sammut leg (coll. Sammut); 2 exx., Rabat, Dwejra, 28-VI-2004, P. Sammut leg (coll. Sammut); 3 xx., Rabat, Dwejra, 28-VI-2004, A. Seguna leg, (coll. Seguna); 1 ex., Rabat, Dwejra, 13-VII-2004, P. Sammut leg (coll. Sammut); 1 ex., Rabat, Ta' Koronja, 14-VI-2002, A. Seguna leg. (coll. Seguna); 1 ex., Naxxar, 30-V-2006, A. Seguna leg, (coll. Seguna); 1 ex., Naxxar, Birguma, 5-VI-2005, M. Zerafa leg, (coll. Zerafa); 1 ex., Siggiewi, Ghar Lapsi, 3-VIII-2001, P. Sammut leg (coll. Sammut). 1 ex., ex-larva, St. Paul's Bay, Mistra, 10-VI-2005, M. Zerafa leg, (coll. Zerafa). All the examined material, except that collected as larvae, has been collected a various sources of UV light.

Life History: Eggs are known to be laid on the leaf margin and near the base of leaves of *Calluna vulgare* and *Erica cinerea* (EMMET *et al.*, 3:270). On hatching the larva enters the cavity formed by the revolute leaf of the larval host plant, grazing on the lower surface of the leaf without forming a mine. As it grows, it forms a case, mostly with frass and silk. Pupation takes place in the case and the pupa is attached to the stem of the host plant in a position to mimic the leaflets, or on the tips of high shoots to be in full sunshine (EMMET *et al.*, 3:270).

Remarks: On the Maltese Islands the family Ericaceae is represented by only *Erica multiflora*. No *Calluna* species are found. This species is quite widely distributed wherever *Erica multiflora* occurs. Larval cases have been found on this plant (Zerafa pers.comm.). It readily comes to light and produces either one long extended brood or a succession of broods from May till December.

Coleophora jefreniensis Toll, 1954

This species has been collected by Bjarne Skule of Veksø, Denmark while on a short holiday in Malta. A female (gen. prep. Wf.9604) and two male specimens (gen.prep. Wf.9602 and Wf.9603) have been collected from Mellieha, Marfa Ridge, Red Tower area, 80m., between the 5th. and 11th. of April 2004. During this period the Maltese Islands experienced strong southern wind storms and this might have been the cause of the occurrence of these specimens in Malta. Determination of the specimens has

been carried out by Mr H. van der Wolf and the specimens are deposited in the Copenhagen Museum. During the same period, Bjarne Skule collected also *Coleophora semicinerea* Stgr., *Coleophora versurella* Z., *Coleophora luteolella* Stgr., and *Coleophora crepidinella* Z. These have been deposited also in the Copenhagen Museum.

Besides being new to the lepidopterofauna of the Maltese archipelago, *Coleophora jefreniensis* Toll is a new addition to the European fauna. So far the species is known only from Tunisia.

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